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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/579,669

05/17/2006

Roumen Antonov

01679/17

9400

26646 7590 04/20/2007
KENYON & KENYON LLP
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EXAMINER

HOLMES, JUSTIN K

ART UNIT

PAPER NUMBER

3681

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/20/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/579,669

Applicant(s)

ANTONOV ET AL.

Examiner

Justin K. Holmes

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 12-14 is/are rejected.
- 7) ☒ Claim(s) 10 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 May 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/6/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. The Examiner acknowledges receipt of the Information Disclosure Statement filed on February 6, 2007.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "output unit and the input unit on each path are axially adjacent, in particular at one spatial end of the path" as claimed in claim 13 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

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the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3, 4, 6-9, 13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,645,114 to Biallas.

The Biallas patent teaches a multiple gear ratio transmission 10 connected to an engine of a motor vehicle having an upper shaft 20, a lower shaft 40 that are connected to each other by at least two power paths 16, 18, at least one of which has two gear ratios (See Fig. 2 and column 3, lines 27-43), the gear ratios differing from one path to another (See Fig. 2 showing different gears on different paths) between the upper shaft 20 and the lower shaft 40, on each power path, selective activators 44, 64, 48, 68 to establish each determined gear ratio and to deactivate in terms of power transmission at least one path other than the path define the aforementioned determined gear ratio, the connection between the upper shaft 20 and the respective input unit 42, 62 of each power path is permanent; and the selective activators are of a gradual type 44, 64. The term “gradual type” as broadly recited in the claims is defined as the activation and deactivation of a clutch to clutch shift as defined in the Biallas patent. Since the

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clutches are shown to be friction clutches in Fig. 1 it would be inherent that there is some slippage as the clutches are engaged and that they would gradually engage.

Regarding claim 3, some of the selective activators are brakes 12 that selectively connect a reaction member to a housing of the transmission device. See column 3, lines 10-15.

Regarding claim 4, each of the power paths 16, 18 is kinematically independent and comprises an output unit 58, 76 permanently connected to the lower shaft 40. See Fig. 1.

Regarding claim 6, each of the power paths 16, 18 is capable of a local direct drive gear ratio. See column 4, lines 33-35. The claiming that an element is "capable" of a local direct drive gear ratio is an intended use and is given no patentable weight.

Regarding claim 7, each of the selective activators 44, 64 can be placed in a neutral state, so that each gear ratio of a power path 16, 18 is obtained by placing a single activator 44, 64 in an activated state, whilst the power path is placed in neutral when all of the selective activators of the power path are in a neutral state. A neutral state as broadly recited in the claims is defined as the activators 44, 64 being disengaged so that no power is transmitted through the power path 16, 18. See column 3, lines 44-54.

Regarding claim 8, power paths 16, 18 have subpaths, each corresponding to a respective local gear ration which are mounted mechanically in parallel between the input unit 42, 62 and the output unit 58, 76. See Fig. 1.

Regarding claim 9, the power paths 16, 18 have a planetary gear train 46, 66.

See Fig. 1.

Regarding claim 13, the output unit 58, 76 and input unit 42, 62 on each path are axially adjacent, in particular at one spatial end of the path. The terms "axially adjacent" as broadly recited in the claims is defined as the input and output units being on the same axis as each other and that they are adjacent in that they are on the same path.

See Fig. 1.

Regarding claim 14, a controller is capable of synchronizing the gradual placing of the selective activators in a neutral state with the gradual placing of another activator in an activated state. See column 2, lines 31-38 where it is stated that the activators can be electronically controlled.

Accordingly, all the elements of claims 1, 3, 4, 6-9, 13 and 14 are anticipated by the Biallas patent.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 6,645,114 to Biallas in view of U.S. Patent No. 5,342,258 to Egyed.

The Biallas patent lacks a teaching that the selective activators are wet multi-disc friction couplings.

The Egyed patent teaches a power transmission having clutches 110, 112, and 114 that are multiple-disc wet clutches that are attached to three separate power paths. See column 24, lines 7-38.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Biallas patent to include the multiple disc wet clutches as taught in the Egyed patent in order to provide a smooth engagement of the input and outputs attached to the clutches.

7. Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,645,114 to Biallas in view of UK Patent No. 2112883 to Ashfield.

Regarding claim 5, the Biallas patent lacks a teaching of that the two power paths are approximately identical and capable of identical local gear ratios.

The Ashfield patent teaches that two power paths 32, 33 are approximately identical and capable of obtaining between their input units 31 and output units 35-37 identical local gear ratios, but are connected to the upper shaft 30 and or the lower shaft 34 with different transfer ratios 35-37. See page 1, lines 75-95 and Fig. 2.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Biallas patent to include the gearing of the Ashfield patent in order to provide a gearbox that where the shafts share torque. See the abstract of the Ashfield patent.

Regarding claim 12, the output unit 40, 41 is on each path 32, 33 in an intermediate position between the spatial ends of the path. See Fig. 2.

Allowable Subject Matter

8. Claims 10 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 3,802,293 to Winckler et al.; U.S. Patent No. 4,468,980 to Johansen; U.S. Patent No. 6,558,283 to Schnelle; U.S. Patent No. 6,811,508 to Tumback; and Japanese Patent No. 3219152 to Takeya all teach various transmissions.

Facsimile Transmission

Submission of your response by facsimile transmission is encouraged. Group 3600's facsimile number is (571) 273-8300. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission.

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Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check.

Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

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Typed or printed name of person signing this certificate:

(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin K. Holmes whose telephone number is (571) 272-5930. The examiner can normally be reached on 8:00am to 4:30pm Monday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on (571) 272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JKH
4/14/07

Saul Rodriguez AD
SAUL RODRIGUEZ 3681
PRIMARY EXAMINER 4/16/07